

Claims

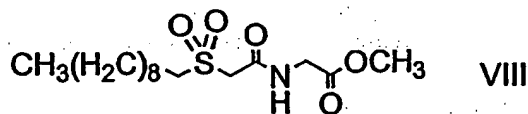
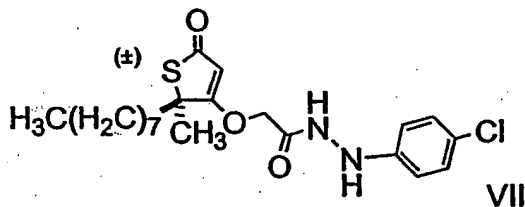
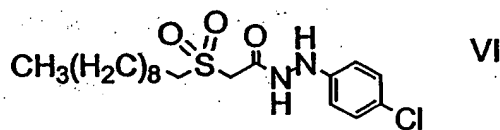
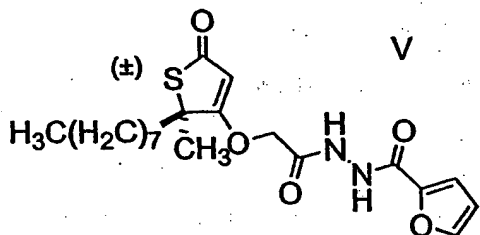
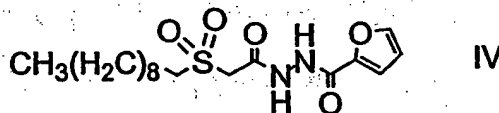
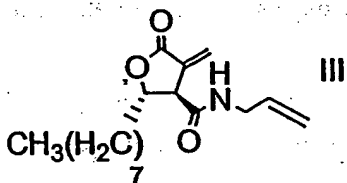
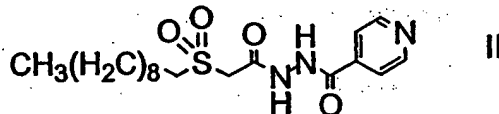
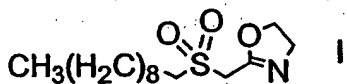
1. A method of treating a subject with a microbially-based infection, comprising the administration of an effective amount of a compound to a subject in need of treatment, the compound being able to decrease ATP levels in the microbe by at least 10% compared to controls after 24 hours in an *in vitro* test, and not kill mammalian cells during the same time period, the decrease in ATP levels being measured by:

- (1) removing the cells from the testing location and putting them on ice;
- (2) harvesting the cells at 4 degrees C by centrifugation and disrupting it with bead-beating in an ATP extraction buffer;
- (3) removing cellular debris by centrifugation at 4 degrees C, leaving an ATP-containing supernatant;
- (4) measuring the amount of ATP present in the supernatant by a bioluminescence assay at 4 degrees C;

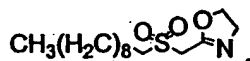
wherein the compound is not of formula  $R-SO_n-Z-CO-Y$ , wherein  $n$  is 1 or 2,  $R$  is a hydrocarbon group having 6-20 carbon atoms,  $Z$  is a hydrocarbon linking moiety that may contain a heteroatom, and  $Y$  is selected from  $-NH_2$ ,  $-O-CH_2-C_6H_5$ ,  $-CO-CO-O-CH_3$ , and  $-O-CH_3$ .

2. The method of claim 1, wherein the subject is a human.
3. The method of claim 1, wherein the subject is an animal.
4. The method of claim 3, wherein the subject is selected from the group consisting of horses, cattle, goats and sheep.

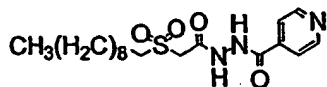
5. The method of claim 1, wherein the compound is selected from the group consisting of:



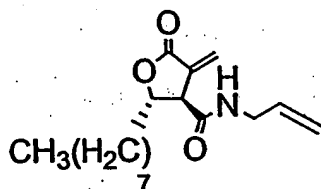
6. The method of claim 5, wherein the compound is



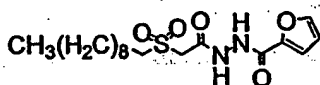
7. The method of claim 5, wherein the compound is



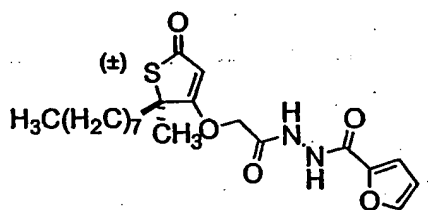
8. The method of claim 5, wherein the compound is



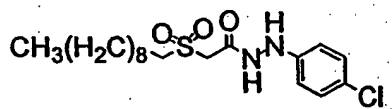
9. The method of claim 5, wherein the compound is



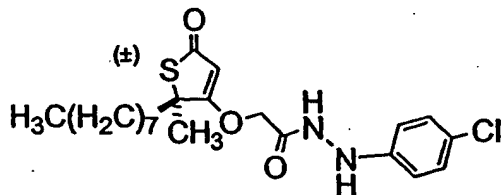
10. The method of claim 5, wherein the compound is



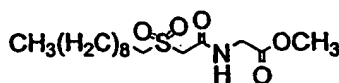
11. The method of claim 5, wherein the compound is



12. The method of claim 5, wherein the compound is



13. The method of claim 5, wherein the compound is



14. The method of claim 1, wherein the subject is infected with a microbe selected from the group consisting of *M. tuberculosis*, *M. avium-intracellulare*, *M. leprae*, *M. paratuberculosis*, *M. ulcerans*, and *Rhodococcus*.

15. A method of treating a subject with a microbially-based infection, comprising the administration of a compound to a subject in need of treatment, wherein the compound produces overexpression of the b-subunit of ATP synthase, and further wherein the compound is not of formula  $R-SO_n-Z-CO-Y$ , wherein n is 1 or 2;

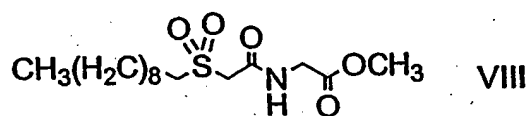
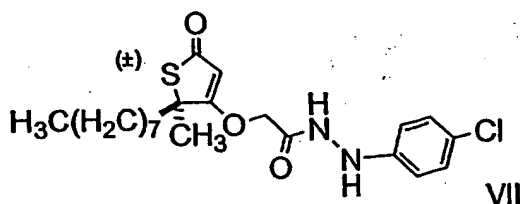
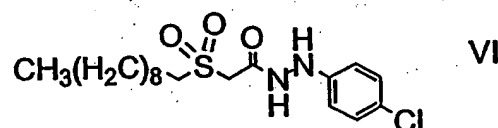
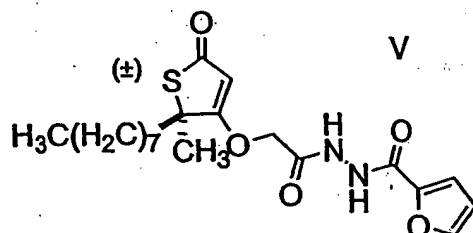
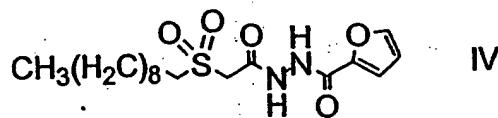
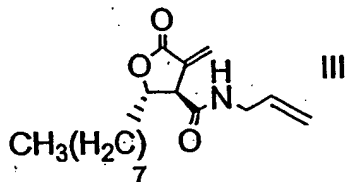
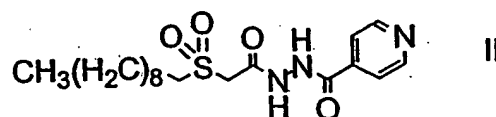
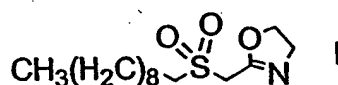
R is a hydrocarbon group having 6-20 carbon atoms, Z is a hydrocarbon linking moiety that may contain a heteroatom, and Y is selected from  $-NH$ ,  $-O-CH_2-C_6H_5$ ,  $-CO-CO-O-CH_3$ , and  $-O-CH_3$ .

16. The method of claim 15, wherein the subject is a human.

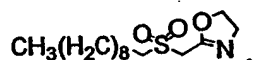
17. The method of claim 15, wherein the subject is an animal.

18. The method of claim 17, wherein the subject is selected from the group consisting of horses, cattle, and sheep.

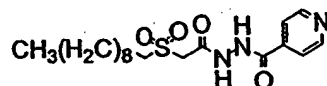
19. The method of claim 15, wherein the compound is selected from the group consisting of:



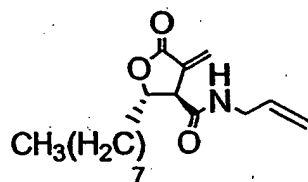
20. The method of claim 19, wherein the compound is



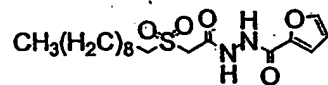
21. The method of claim 19, wherein the compound is



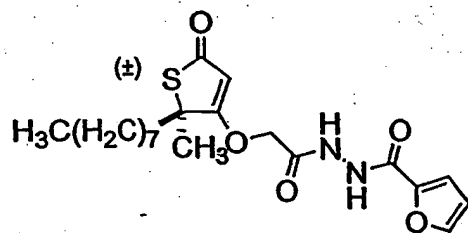
22. The method of claim 19, wherein the compound is



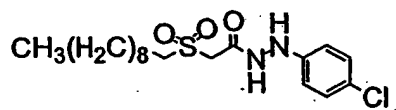
23. The method of claim 19, wherein the compound is



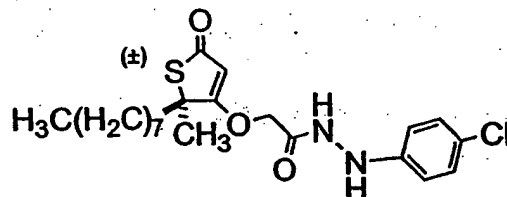
24. The method of claim 19, wherein the compound is



25. The method of claim 19, wherein the compound is



26. The method of claim 19, wherein the compound is



27. The method of claim 19, wherein the compound is

